

METHOD AND APPARATUS OF ACQUIRING LARGE FOVIMAGES WITHOUT SLAB-BOUNDARY ARTIFACTS

Abstract of Disclosure

A system and method are disclosed using incremental table motion and partial data acquisition for increased volume coverage to reconstruct MR images across a large FOV without significant slab-boundary artifacts. At each table position, full z-encoding data are acquired for a subset of the $k_x - k_y$ data. The table is stepped through a number of positions over the desired FOV and MR data are acquired over the plurality of table increments. Since full z-data are acquired for each slab, the data can be Fourier transformed in z, sorted, and then aligned to match anatomic z locations. The fully sampled and aligned data is then Fourier transformed in x and y to reconstruct the final image that is free of slab-boundary artifacts.

Figures